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January 21, 2016

Jennifer LaPoma
17-mile LPRSA RI/FS Remedial Project Manager
U.S. Environmental Protection Agency, Region 2
290 Broadway
New York, NY 10007-1866

Via Electronic Delivery

Re: COPC Mapping Meeting- 17-mile LPRSA RI/FS — May 2007 Administrative Agreement and Order on Consent for Remedial Investigation/Feasibility Study – CERCLA Docket No. 02-2007-2009 (AOC)

Dear Ms. LaPoma:

On behalf of the Lower Passaic River Cooperating Parties Group (CPG), this letter and its attachment are provided in response to both the Region's January 19, 2016 email, which the CPG replied to via email on January 19, 2016, and the Region's letter received today.

Attached please find an outline of the CPG's presentation on using conditional simulations to support COPC Mapping for the meeting scheduled for January 27, 2016. If possible, the CPG will endeavor to provide its presentation in advance of the January 27, 2016 meeting.

The CPG looks forward to the January 27 meeting with Region 2 and Headquarters representatives to begin a process to collaboratively develop a COPC mapping approach that will address the Region's concerns about uncertainty and bias.

The CPG requests that Region 2 include this letter into the Administrative Records for both the 17-mile LPRSA Operable Unit and the 8-mile Proposed Plan of the Diamond Alkali Superfund Site.

Please contact Bill Potter or me with any questions or comments.

Very truly yours,

de maximis, inc.

Robert H. Law, Ph.D
CPG Project Coordinator

J. LaPoma
17-mile RI/FS – COPC Mapping Meeting
January 21, 2016
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Attachment - CPG Presentation Outline - Ideas to Address Region 2 Concerns with Mapping Uncertainty

cc: Stephanie Vaughn, USEPA Region 2
Ray Basso, USEPA Region 2
Walter Mugdan, EPA Region 2
Sarah Flanagan, EPA Region 2
James Woolford, EPA HQ
Steve Ells, EPA HQ
CPG Members
William Hyatt, CPG Coordinating Counsel
Willard Potter, CPG Project Coordinator

EPA-CPG COPC Mapping Meeting
CPG Presentation Outline
Ideas to Address Region 2 Concerns with Mapping Uncertainty
January 27, 2016

- I. Introduction
 - a. Need for mapping
 - b. Understanding of uncertainty
 - c. Use of Conditional Simulation to quantify uncertainty and address potential bias in using Thiessen polygon maps to craft and evaluate remedial options
 - d. Precedent for using Conditional Simulation
 - e. Ideas for using Conditional Simulation to craft and evaluate remedial options
 - i. Statistical expressions of benefits achieved at particular remedial action levels
 - ii. Statistical expressions of area meeting a particular remedial action level
 - f. Idea for using Conditional Simulation to craft remedial design sampling programs
- II. Overview of Conditional Simulation Approach
 - a. Kriging
 - b. Conditional Simulation
- III. Proposed Approach to Implement Conditional Simulation
 - a. Segmenting the river for interpolation
 - b. Developing variograms for each segment
 - c. Kriging
 - d. Conditional Simulation software choice
- IV. Preliminary Results
 - a. QC checks
 - b. Example maps
 - c. Evaluation of a targeted remedy
 - i. Scale of evaluation
 - ii. Histograms of remedy effectiveness and target area
 - iii. Relationship of effectiveness and area targeted